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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,006	12/26/2001	Masayoshi Kobayashi	P/1912-25	1148

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EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/027,006	Applicant(s) KOBAYASHI, MASAYOSHI	
	Examiner Robert W. Wilson	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,14,15,26,32,38-42 and 48-50 is/are rejected.
- 7) ☒ Claim(s) 3-13,16-25,27-31,33-37,43-47 and 51-55 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 32-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 32 claims a computer program. A computer program is not a method or a process or article of manufacture and therefore non-statutory. A computer program would have to be on a computer medium or in a processor in order for it to be statutory subject matter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 32³⁹ recites the limitation "said switching apparatus"_^ in a claim for a switching program and an apparatus is never mentioned. There is insufficient antecedent basis for this limitation in the claim. (in claim 32)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 14, 26, 32, 38-41, & 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US2002/0112085).

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6. Referring to claims 1, 14, & 26 Berg teaches: A switching apparatus (Flow Switch per Fig 1b) for relaying packets communication through the communication network (inherently sends packets to Internet or communication network per Fig 1b) between a plurality of servers (Servers 1 through n per Fig 1b) and clients (Internet network inherently has more than one client per Fig 1B)

during the relay of packet to be transmitted form one of plurality of servers to one of the plurality of clients, rewriting header information of the packet to have the contents which are set when the packet is sent form the switching apparatus and sending said packet to said client (The flow switch rewrites the packet in a translation operation or rewrites the header per Pg 18 Para [0226]-[0229])when relaying a packet from the servers (Server 1-n per Fig 1b) to the clients (Internet inherently has more than one client as shown in Fig 1B) .

from the relay of a data acquisition request (request per Pg 18 Para [0228]) from said client (client per Fig 1b) , conducting one-way splicing processing in the direction from the server to the client (The one way splicing is set upon request and continues per the Pg 18 Para[0225]-[0229]) as well as successfully conducting retransmission control and flow control of the communication in the direction from said client to said server (flow control and retransmission are inherent capabilities of TCP which is used in inherently in the Internet)

Berg does not expressly call for: acknowledgment to be sent at the end of the transmission in this prior art embodiment nor does he teach that flow continues through the Ack.

Berg teaches: acknowledgement are commonly sent between the sever and client per Pg 3 Para [0050] in another prior art embodiment.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to add the acknowledgment of Berg in Para [0050] and Fig 1a to the network with the flow switch per Fig 1b because acknowledgments are well known synchronization signals sent between servers and clients. It would have also been obvious to one of ordinary skill in the art at the time of the invention that the connection or TCP splice would have to be up through receipt of an acknowledgment in order for the invention to work.

4. Referring to claim 32, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 26 into software or switching program.

7. Referring to claims 38, Berg teaches: A switching logic (Flow Switch per Fig 1b which has logic) for relaying packets communication through the communication network (inherently sends packets to Internet or communication network per Fig 1b) between a plurality of servers (Servers 1 through n per Fig 1b) and clients (Internet network inherently has more than one client per Fig 1B) the logic comprising:

from the relay of a data acquisition request (request per Pg 18 Para [0228]) from said client (client per Fig 1b) , conducting one-way splicing processing in the direction from the server to the client (The one way splicing is set upon request and continues per the Pg 18 Para[0225]-[0229]) as well as successfully conducting retransmission control and flow control of the communication in the direction from said client to said server (flow control and retransmission are inherent capabilities of TCP which is used in inherently in the Internet)

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Berg does not expressly call for: performing the switching logic as a program in the server nor does Berg expressly call for acknowledgment to be sent at the end of the transmission in this prior art embodiment nor does he teach that flow continues through the Ack

Berg teaches: acknowledgement are commonly sent between the server and client per Pg 3 Para [0050] in another prior art embodiment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the acknowledgment of Berg in Para [0050] and Fig 1a to the network with the flow switch per Fig 1b because acknowledgments are well known synchronization signals sent between servers and clients. It would have also been obvious to one of ordinary skill in the art at the time of the invention that the connection or TCP splice would have to be up through receipt of an acknowledgment in order for the invention to work. It would have been obvious to one of ordinary skill in the art at the time of the implement the logic in the server to control the switching in order to save space. It is within the level of one skilled in the art at the time of the invention to implement the logic as software or a program.

8. Referring to claim 39, Berg teaches: A switching logic (Flow Switch per Fig 1b which has logic) for relaying packets communication through the communication network (inherently sends packets to Internet or communication network per Fig 1b) between a plurality of servers (Servers 1 through n per Fig 1b) and clients (Internet network inherently has more than one client per Fig 1B) the logic comprising:
from the relay of a data acquisition request (request per Pg 18 Para [0228]) from said client (client per Fig 1b) , conducting one-way splicing processing in the direction from the server to

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the client (The one way splicing is set upon request and continues per the Pg 18 Para[0225]-[0229]) as well as successfully conducting retransmission control and flow control of the communication in the direction from said client to said server (flow control and retransmission are inherent capabilities of TCP which is used in inherently in the Internet)

Berg does not expressly call for: performing the switching logic as a program in the client nor does Berg expressly call for acknowledgment to be sent at the end of the transmission in this prior art embodiment nor does he teach that flow continues through the Ack

Berg teaches: acknowledgement are commonly sent between the sever and client per Pg 3 Para [0050] in another prior art embodiment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the acknowledgment of Berg in Para [0050] and Fig 1a to the network with the flow switch per Fig 1b because acknowledgments are well known synchronization signals sent between servers and clients. It would have also been obvious to one of ordinary skill in the art at the time of the invention that the connection or TCP splice would have to be up through receipt of an acknowledgment in order for the invention to work. It would have been obvious to one of ordinary skill in the art at the time of the implement the logic or integrate the logic in the client to control the switching in order to save space. It is within the level of one skilled in the art at the time of the invention to implement the logic as software or a program.

9. Referring to claim 40, Berg teaches: A server per Fig 1b and switching logic (Flow Switch per Fig 1b which has logic) for relaying packets communication through the communication network (inherently sends packets to Internet or communication network per Fig

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1b) between a plurality of servers (Servers 1 through n per Fig 1b) and clients (Internet network inherently has more than one client per Fig 1B) the logic comprising:

from the relay of a data acquisition request (request per Pg 18 Para [0228]) from said client (client per Fig 1b) , conducting one-way splicing processing in the direction from the server to the client (The one way splicing is set upon request and continues per the Pg 18 Para[0225]-[0229]) as well as successfully conducting retransmission control and flow control of the communication in the direction from said client to said server (flow control and retransmission are inherent capabilities of TCP which is used in inherently in the Internet)

Berg does not expressly call for: performing the switching logic as a program in the server nor does Berg expressly call for acknowledgment to be sent at the end of the transmission in this prior art embodiment nor does he teach that flow continues through the Ack

Berg teaches: acknowledgement are commonly sent between the server and client per Pg 3 Para [0050] in another prior art embodiment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the acknowledgment of Berg in Para [0050] and Fig 1a to the network with the flow switch per Fig 1b because acknowledgments are well known synchronization signals sent between servers and clients. It would have also been obvious to one of ordinary skill in the art at the time of the invention that the connection or TCP splice would have to be up through receipt of an acknowledgment in order for the invention to work. It would have been obvious to one of ordinary skill in the art at the time of the implement the logic or integrate the logic in the server to control the switching in order to save space.

In Addition Berg teaches:

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Regarding claim 40, it would have been obvious to one of ordinary skill in the art at the time of the invention that the TCP splice would have to be up until the packets are transmitted in order for the invention to work per Pg 18 Para [0225]-[0228].

10. Referring to claim 48, Berg teaches: A client (client per Fig 1b) in a communication system (Fig 1b) which conducts a packet (inherently sends packets to Internet or communication network per Fig 1b) between server (Servers 1) and clients (client per Fig 1B) through a switching apparatus (flow switch per Fig 1b) from the time of relay of a data acquisition request (request per Pg 18 Para [0228]) from said client (client per Fig 1b), conducting one-way splicing processing in the direction from the server to the client (The one way splicing is set upon request and continues per the Pg 18 Para[0225]-[0229])

Berg does not expressly call for: performing the switching in the client nor does Berg expressly call for acknowledgment to be sent at the end of the transmission in this prior art embodiment nor does he teach that flow continues through the Ack

Berg teaches: acknowledgement are commonly sent between the server and client per Pg 3 Para [0050] in another prior art embodiment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the acknowledgment of Berg in Para [0050] and Fig 1a to the network with the flow switch per Fig 1b because acknowledgments are well known synchronization signals sent between servers and clients. It would have also been obvious to one of ordinary skill in the art at the time of the invention that the connection or TCP splice would have to be up through receipt of an

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acknowledgment in order for the invention to work. It would have been obvious to one of ordinary skill in the art at the time of the implement the logic or integrate the logic in the client to control the switching in order to save space.

In Addition Berg teaches:

Regarding claim 49, it would have been obvious to one of ordinary skill in the art at the time of the invention that the TCP splice would have to be up until the packets are transmitted in order for the invention to work per Pg 18 Para [0225]-[0228].

11. Claims 2, 15, 42, & 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US2002/0112085) further in view of admitted prior art.

12. Referring to claim 2, the combination of Berg teaches: the communication system as set forth in claim 1 and a flow switch or switching apparatus which inherently has means for relaying and rewriting and means for conducting one way splicing. The Berg does not expressly call for: client side processing unit and server side processing unit. The admitted prior art in the specification teaches a client side processing unit and server side processing unit per Fig 19 of the specification or distributed processing architecture. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the distributive processing architecture of the admitted prior art in the specification to the communication system of the Berg because it would be more efficient to perform tasks in a distributive processing architecture because by distributing the tasks between multiple processors the overall throughput of the can be increased thus making the processing more efficient.

13. Referring to claim 15, the Berg teaches: the switching apparatus as set forth in claim 14 and a flow switch or switching apparatus which inherently has means for relaying and rewriting and means for conducting one way splicing. The Berg does not expressly call for: client side processing unit and server side processing unit. The admitted prior art in the specification teaches a client side processing unit and server side processing unit per Fig 19 of the specification or distributive processing architecture. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the distributive processing architecture of the admitted prior art in the specification to the communication system of the Berg because it would be more efficient to perform tasks in a distributive processing architecture because by distributing the tasks between multiple processors the overall throughput of the can be increased thus making the processing more efficient.

14. Referring to claim 42, the Berg teaches: the server as set forth in claim 41. The Berg does not expressly call for: header including sequence number, data length, and ACK number. The admitted prior art of the specification teaches: header including sequence number, data length, and ACK number per Pg 2 lines 21-Pg 3 line 6. The sequence number, data length, and ACK number are functions performed in TCP protocol according to the admitted prior art. TCP protocol is Internet standard.

It would have been obvious to add the sequence number, data length, and ACK number of the admitted prior art of the specification to the server of the Berg in order to be standards compliant.

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15. Referring to claim 50, the Berg teaches: the client as set forth in claim 49. The Berg does not expressly call for: header including sequence number, data length, and ACK number. The admitted prior art of the specification teaches: header including sequence number, data length, and ACK number per Pg 2 lines 21-Pg 3 line 6. The sequence number, data length, and ACK number are functions performed in TCP protocol according to the admitted prior art. TCP protocol is Internet standard. It would have been obvious to add the sequence number, data length, and ACK number of the admitted prior art of the specification to the server of the Berg in order to be standards compliant.

Response to Amendment

16. Applicant's arguments with respect to claims 1-55 have been considered but are moot in view of the new ground(s) of rejection.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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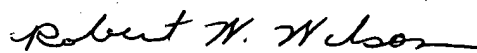
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

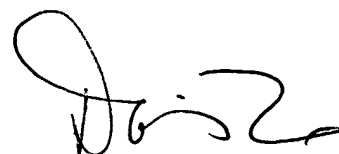
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571/272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert W Wilson
Examiner
Art Unit 2616

RWW
4/4/06



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600